

In the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims

1. (original) A voltage reference generator for generating an output voltage at an output node, comprising:

a level shifter for shifting a first reference voltage into the output voltage at the output node according to a shift between the first reference voltage and the output voltage; and

a feedback circuit for monitoring the output voltage and a second reference voltage to control the shift and to normalize the output and second reference voltages.

2. (original) The voltage reference generator as claimed in claim 1, wherein the level shifter includes a source follower coupled between a voltage source and the output node, the source follower having an input node for receiving the first reference voltage.

3. (original) The voltage reference generator as claimed in claim 2, wherein the source follower has an MOS transistor having a drain connected to the voltage source, a source as the output node and a gate as the input node, and further having a current source controlled by the feedback circuit and connected to the source of the MOS transistor.

4. (original) The voltage reference generator as claimed in claim 3, wherein the MOS transistor is a NMOS transistor.

5. (original) The voltage reference generator as claimed in claim 3, wherein the MOS transistor is a PMOS transistor.

6. (currently amended) The voltage reference generator as claimed in claim 3, wherein the current source is an MOS transistor having a drain connected to the output node, a source connected to a ground, and a gate connected to the output of a a ~~the~~ differential amplifier.

7. (original) The voltage reference generator as claimed in claim 3, wherein the level shifter further comprises a constant current source coupled between the output node and another voltage source.

8. (original) The voltage reference generator as claimed in claim 6, wherein the MOS transistor is a NMOS transistor.

9. (original) The voltage reference generator as claimed in claim 6, wherein the MOS transistor is a PMOS transistor.

10. (original) The voltage reference generator as claimed in claim 1, further comprising a low-pass filter to filter out a high frequency portion of the first reference voltage and direct the first reference voltage to the level shifter.

11. (original) The voltage reference generator as claimed in claim 10, wherein the low-pass filter comprises at least a capacitor connecting an input node of the level shifter and a voltage source.

12. (original) The voltage reference generator as claimed in claim 1, wherein the feedback circuit has a differential amplifier with an inverted input, a non-inverted input and an output, the non-inverted input coupled to the output node, the inverted input coupled to the second reference voltage, and the output coupled to a current source in the level shifter to control the shift of the level.

13. (original) The voltage reference generator as claimed in claim 12, wherein the feedback circuit further has a low-pass filter connected between output of the differential amplifier and current source in the level shifter.

14. (original) The voltage reference generator as claimed in claim 1, further comprising a voltage divider to provide the first reference voltage and a third reference voltage.